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09/511,408	02/23/2000	Toshihiro Sasai	80959	3948

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EXAMINER	
YODER III, CHRISS S	
ART UNIT	**PAPER NUMBER**
2612	5

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/511,408	Applicant(s) SASAI ET AL.	
	Examiner Chriss S. Yoder, III	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 February 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

Figure 16 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hannah (US Patent # 5,712,682) in view of the Applicant's Admitted Prior Art.

2. In regard to claim 1, note Hannah discloses the use of an electronic camera apparatus with the capability of correcting luminance balance (column 2, lines 34-41; and figure 1: 100) in an image signal read out from an image sensing element (column 3, lines 50-51), said image signal representing a color image constructed by a plurality of pixels and generating a desired image from the image signal (column 3, lines 18-19), comprising: a luminance correction section coupled at the output of the image sensing element (figure 1: 106), to generate individual correction coefficients for each said pixel from a plurality of correction coefficients (column 3, lines 50-56), the correction of white balance using corresponding luminance information in the image signal on the basis of

each said correction coefficient and output a new image signal used for image generation (column 3, lines 50-56; and figure 10: 184 is the output). Therefore, it can be seen that the Hannah device lacks the use of individual units of raw colors of said pixels, each one of said pixels each being formed from a set of predetermined units of colors and each unit of color having an analog value representing luminance information, the luminance information being discrete on a time axis. Although Hannah does not explicitly disclose the use of individual units of raw colors of said pixels, each one of said pixels each being formed from a set of predetermined units of colors and each unit of color having an analog value representing luminance information, the luminance information being discrete on a time axis, it does state that it can be any type of image sensor (column 3, lines 44-46) therefore, based on the applicant's admission of prior art in the specification, the use of an image sensing element outputting individual units of raw colors of said pixels, each one of said pixels each being formed from a set of predetermined units of colors and each unit of color having an analog value representing luminance information, and the luminance information being discrete on a time axis is well known in the art (page 1, lines 15-21). Therefore, it would have been obvious to one of ordinary skill in the art to modify the Hannah device to include the use of individual units of raw colors of said pixels, each one of said pixels each being formed from a set of predetermined units of colors and each unit of color having an analog value representing luminance information, the luminance information being discrete on a time axis.

3. In regard to claim 2, note Hannah discloses the use of a luminance correction section connected in series with the image signal (looking at figure 1 you can see that the correction section 106 is in series with the image signal output from the sensor).

1. In regard to claim 3, note Hannah discloses the use of a correction control section that generates a luminance correction amount corresponding to each pixel based on a clock signal synchronized with the luminance information in the pixel (column 2, lines 51-53), and a luminance correction amplification section would be inherent in order to adjust the pixel based on the input correction amount generated from the luminance correction section and to then output the new image signal (column 2, lines 51-53).

2. In regard to claim 5, note Hannah discloses that the correction coefficients are formed in units of pixels, and the correction section selects and used the luminance correction amounts as the correction coefficients in units of pixels (column 3, lines 44-56).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hannah (US Patent # 5,712,682) in view of the Applicant's Admitted Prior Art as applied to claim 1 above, and in further view of Wober (US Patent # 5,870,505).

4. In regard to claim 4, note Hannah discloses the use of a correction control section for generating a luminance correction amount (column 3, lines 49-56). Therefore, it can be seen that the Hannah device lacks the use of two correction control sections and using the combination of correction amounts generated in each correction control section to adjust the pixel's luminance and output the new image signal. Wober

discloses a first and second correction control section for generating a luminance correction amount (column 2, lines 33-52), and using the combination of correction amounts generated in each correction control section to adjust the pixel's luminance and output the new image signal (column 2, lines 50-52). Wober teaches that the use of a first and second correction control section in combination to adjust the pixel's luminance is preferred in order to generate a higher quality output. Therefore, it would have been obvious to one of ordinary skill in the art to modify the Hannah device to include the use of a first and second correction control section in combination to adjust the pixel's luminance in order increase the quality of the output.

5. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hannah (US Patent # 5,712,682) in view of the Applicant's Admitted Prior Art as applied to claim 1 above, and in further view of Sakaguchi (US Patent # 5,534,916).

6. In regard to claim 6, the primary reference discloses the use of a camera having an image sensing device, generating the desired signal from the image signal, the use of a luminance correction section for generating individual correction coefficients from a plurality of coefficients in units of pixels, correcting the luminance information based on the correction coefficients, outputting a new image signal, pixels with predetermined color values, and analog luminance values. Therefore, it can be seen that the primary reference lacks the use of correction amounts corresponding to coordinate positions defined by two-dimensional coordinates of the image. Sakaguchi discloses the use of two-dimensional coordinates within the image to generate the correction amount (column 2, lines 58-60; column 3, lines 26-29;and figure 3). Sakaguchi teaches that the

use of two-dimensional coordinates in order to get correction amounts is preferred in order to correct problems of shading created by the lens. Therefore, it would have been obvious to one of ordinary skill to modify the primary device to use two-dimensional coordinates within the image to generate the correction amount in order to correct problems of shading created by the lens.

7. In regard to claim 7, the primary reference discloses the use of a camera having an image sensing device, generating the desired signal from the image signal, the use of a luminance correction section for generating individual correction coefficients from a plurality of coefficients in units of pixels, correcting the luminance information based on the correction coefficients, outputting a new image signal, pixels with predetermined color values, and analog luminance values. Therefore, it can be seen that the primary reference lacks the use of correction amounts corresponding to coordinate regions defined by two-dimensional coordinates of the image. Sakaguchi discloses the use of two-dimensional coordinates within the image to generate the correction amount (column 2, lines 58-60; column 3, lines 26-29;and figure 3). Sakaguchi teaches that the use of two-dimensional coordinates in order to get correction amounts is preferred in order to correct problems of shading created by the lens. Therefore, it would have been obvious to one of ordinary skill to modify the primary device to use two-dimensional coordinates within the image to generate the correction amount in order to correct problems of shading created by the lens.

8. In regard to claim 8, the primary reference discloses the use of a camera having an image sensing device, generating the desired signal from the image signal, the use

of a luminance correction section for generating individual correction coefficients from a plurality of coefficients in units of pixels, correcting the luminance information based on the correction coefficients, outputting a new image signal, pixels with predetermined color values, and analog luminance values. Therefore, it can be seen that the primary reference lacks the use of correction amounts representing two correction distribution characteristics changing in axial directions of two coordinate axes that form the two-dimensional coordinates of the image. Sakaguchi discloses the use of two-dimensional coordinates within the image to generate the correction amount (column 2, lines 58-60; column 3, lines 26-29;and figure 3), and it is inherent that the correction amounts represent two correction distribution characteristics changing in axial directions because the correction amount is dependent on the pixel position. Sakaguchi teaches that the use of two-dimensional coordinates in order to get correction amounts is preferred in order to correct problems of shading created by the lens. Therefore, it would have been obvious to one of ordinary skill to modify the primary device to use two-dimensional coordinates within the image to generate the correction amount in order to correct problems of shading created by the lens.

9. In regard to claim 9, the primary reference discloses the use of a camera having an image sensing device, generating the desired signal from the image signal, the use of a luminance correction section for generating individual correction coefficients from a plurality of coefficients in units of pixels, correcting the luminance information based on the correction coefficients, outputting a new image signal, pixels with predetermined color values, and analog luminance values. Therefore, it can be seen that the primary

reference lacks the use of correction amounts representing two correction distribution characteristics changing in axial directions of two coordinate axes that form the two-dimensional coordinates of the image. Sakaguchi discloses the use of two-dimensional coordinates within the image to generate the correction amount (column 2, lines 58-60; column 3, lines 26-29;and figure 3), it is inherent that the correction amounts represent two correction distribution characteristics changing in axial directions because the correction amount is dependent on the pixel position, and it is implied that if the two correction amounts are dependent on the position on each axis that if the values increased as it moved outward, the sum of the two would increase the correction amount based on position. Sakaguchi teaches that the use of two-dimensional coordinates in order to get correction amounts is preferred in order to correct problems of shading created by the lens. Therefore, it would have been obvious to one of ordinary skill to modify the primary device to use two-dimensional coordinates within the image to generate the correction amount in order to correct problems of shading created by the lens.

10. In regard to claim 10, the primary reference discloses the use of a camera having an image sensing device, generating the desired signal from the image signal, the use of a luminance correction section for generating individual correction coefficients from a plurality of coefficients in units of pixels, correcting the luminance information based on the correction coefficients, outputting a new image signal, pixels with predetermined color values, and analog luminance values. Therefore, it can be seen that the primary reference lacks the use of correction amounts representing two correction distribution

characteristics changing in axial directions of two coordinate axes that form the two-dimensional coordinates of the image. Sakaguchi discloses the use of two-dimensional coordinates within the image to generate the correction amount (column 2, lines 58-60; column 3, lines 26-29;and figure 3), it is inherent that the correction amounts represent two correction distribution characteristics changing in axial directions because the correction amount is dependent on the pixel position, and it is implied that if the two correction amounts are dependent on the position on each axis that if the values increased as it moved outward, the product of the two would increase the correction amount based on position. Sakaguchi teaches that the use of two-dimensional coordinates in order to get correction amounts is preferred in order to correct problems of shading created by the lens. Therefore, it would have been obvious to one of ordinary skill to modify the primary device to use two-dimensional coordinates within the image to generate the correction amount in order to correct problems of shading created by the lens.

Response to Arguments

Applicant's arguments with respect to claim 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Relevant Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US005606392A: note the use of analog signal processing.

US005196923A: note the use of analog signal processing.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chriss S. Yoder, III whose telephone number is (703) 305-0344. The examiner can normally be reached on M-F: 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-HELP.

CSY
April 2, 2004

VU LE
PRIMARY EXAMINER